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**TITLE: Location updating for a packet-switched  
data service in  
a mobile communication system**

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**Detailed Description Text - DETX (13):**

**The normal location updating of a cellular network is illustrated in FIG. 2, which shows two location areas LA1 and LA2 with cells C1-C6 and C7-C13, respectively. The base stations of the cellular network constantly broadcast information on themselves and their neighborhood, for instance location area identifiers LAI, base station identifiers BSI, base station type identifiers BSTI, etc. A mobile station MS registered in a cell knows which location area the base station BTS belongs to on the basis of the location area identifier broadcast by the base station BTS. If the MS observes**

that the location area identifier LAI changes when the base station BTS is changed, i.e. that the location area LA changes, the MS initiates location updating by transmitting a location updating request to the cellular radio network. In FIG. 2, the change of location area and location updating take place on route A-B at points I, II and III. If the location area is not changed, the MS does not perform location updating. This is the case for instance on transition from cell C2 to cell C3 within location area LA1.

**Current US Cross Reference Classification - CCXR (5):  
455/456.1**